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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,792	02/28/2002	Jeremy Paul Cahill	MS188865.1	8021

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EXAMINER

FAROOQ, MOHAMMAD O

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/085,792

Applicant(s)

CAHILL ET AL.

Examiner

Mohammad O. Farooq

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,12-14,16,17,22-26 and 28-30 is/are rejected.
- 7) ☒ Claim(s) 3-11,15,18-21,27 and 31-37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 12-14, 16, 22-26, 28, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Aronson et al. U.S. Pat. No. 6,128,673.

2. As to claim 1, Aronson et al. teach apparatus for small form factor device that is removably attached at a connector (inherent), comprising:

a selection system (digital protocol translator; col. 2, lines 58-63) coupled to route data between a bus and the connector (col. 10, lines 44-63);

the selection system operating in a first mode (first digital protocol) to convert between a protocol supplied at the connector and a protocol of the bus if the device attached at the connector employs a different protocol (inherent) from the protocol of the bus (col 10, lines 44-63; col. 2, line 58 - col. 3, line 42)); and

the selection system operating in a second mode (second digital protocol) to pass the protocol between the bus and the connector without protocol conversion (inherent) if the device attached at the connector employs a protocol supported by the bus (col. 10, lines 44-63; col. 2, line 58 – col. 3, line 42).

3. As to claim 12, Aronson et al. teach the protocol of the bus comprising a serial bus protocol (USB; col. 4, line 42-50).

4. As to claim 13, Aronson et al. teach the serial bus protocol conforming to one of universal serial bus (USB; col. 4, lines 42-50), IEEE 1394 (inherent).

5. As to claim 14, Aronson et al. teach the selection system implemented as an integrated circuit (integrated design; col. 2, lines 58-62).

6. As to claim 23, Aronson et al. teach the selector is coupled between the interface and the bus (see fig. 2).

7. As to claim 24, Aronson et al. teach the selector is coupled between the connector and the interfaces (col. 2, lines 58-63).

8. As to claim 25, Aronson et al. teach comprising a hub coupled between the interfaces and the bus (see fig. 3 and 3A).

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9. Claims 16, 22, and 26 are similar in limitations as claims 1, 12, and 14. Aronson et al. teach apparatus as set forth in claims 1, 12, and 14. Therefore, Aronson et al. also teach apparatus as set forth in claims 16, 22, and 26.

10. Claims 28 and 29 are similar in limitations as claim 1. Aronson et al. teach apparatus as set forth in claim 1. Therefore, Aronson et al. also teach apparatus as set forth in claim 28 and method as set forth in claim 29.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2, 17, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aronson et al. U.S. Pat. No. 6,128,673 in view of Arato et al. U.S. Pat. No. 6,535,522 B1.

12. As to claim 2, Aroson et al. do not teach connector further comprising a detector operative to detect the device attached at the connector and selection system selecting one of the operating modes based on the type information.

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Arato et al. teach connector further comprising a detector operative to detect the device attached at the connector and selection system selecting one of the operating modes (since programmable) based on the type information (col. 5, lines 32-67, col. 6, lines 1-42). However, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Aronson et al. and Arato et al. because that would provide protocol conversions between any number of protocols in mass production (col. 2, lines 9-15).

13. Claims 17 and 30 have similar limitations as claim 2. Aronson et al. and Arato et al. in combination teach apparatus as set forth in claim 2. Therefore, Aronson et al. and Arato et al. in combination also teach apparatus as set forth in claim 17 and method as set forth in claim 30.

Allowable Subject Matter

14. Claims 3-11, 15, 18-21, 27, and 31-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad O. Farooq whose telephone number is (703) 305-3888. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on (703) 308-3301. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Mohammad O. Farooq
December 13, 2003